UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/568,507 | 02/16/2006 | Nobuko Yamamoto | 03500.103811. | 1163 |

5514 7590 11/18/2010

FITZPATRICK CELLA HARPER & SCINTO
1290 Avenue of the Americas
NEW YORK, NY 10104-3800

| EXAMINER | |
|---|---|
| CROW, ROBERT THOMAS | |
| ART UNIT | PAPER NUMBER |
| 1634 | |
| MAIL DATE | DELIVERY MODE |
| 11/18/2010 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/568,507 | YAMAMOTO, NOBUKO | |
| | Examiner | Art Unit | |
| | ROBERT T. CROW | 1634 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *29 September 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,10,11 and 26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 10, 11, and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

**FINAL ACTION**

***Status of the Claims***

1. This action is in response to papers filed 29 September 2010 in which claim 1 was amended, claims 9 and 22-25 were canceled, and new claim 26 was added. All of the amendments have been thoroughly reviewed and entered.

The previous rejections under 35 U.S.C. 112, first paragraph, are withdrawn in view of the amendments.

The previous rejections under 35 U.S.C. 103(a) not reiterated below are withdrawn in view of the amendments. Applicant's arguments have been thoroughly reviewed and are addressed following the rejections necessitated by the amendments.

Claims 1, 10-11, and 26 are under prosecution.

2. The following rejections are new rejections necessitated by the amendments.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 26 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. New claim 26 is drawn to a carrier wherein "at least 100 spots of the same probe are arranged in each of the areas." Figures 1-3 and

7 show an 8x9 grid of spots (i.e., 72 spots), which implicitly supports the amendments to claim 1 requiring "at least two" spots; which is also supported by the Abstract. However, further review of the specification yields no teaching of "at least 100 spots" in each of the areas. In addition, Applicant has provided no citation of support for new claim 26. Therefore, the limitations of claim 26 requiring a carrier wherein "at least 100 spots of the same probe are arranged in each of the areas" constitutes new matter.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 10, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheehan et al (Biosensors and Bioelectronics, vol. 18. pages 1455-1459, available online 2 April 2003; as evidenced by the Biosensors and Bioelectronics homepage at sciencedirect.com [retrieved on 2010-02-02]) in view of Ilsley et al (U.S. Patent Application Publication No. US 2004/0081969 A1, published 29 April 2004, filed 29 October 2002).

Regarding claim 1, Sheehan et al teach a probe carrier in the form of a biomolecule array, which has a gold surface (page 10456, Section 2.2) having separated spots at known locations on the carrier (Figure 2). The spots have a uniform

diameter (page 1457, column 2, second full paragraph), and are produced from a 3 micromolar solution (page 1456, Section 2.2).

It is noted that *In re Best* (195 USPQ 430) and *In re Fitzgerald* (205 USPQ 594) discuss the support of rejections wherein the prior art discloses subject matter which there is reason to believe includes functions that are newly cited or is identical to a product instantly claimed. In such a situation the burden is shifted to the applicants to "prove that subject matter shown to be in the prior art does not posses characteristic relied on" (205 USPQ 594, second column, first full paragraph). While Sheehan et al do not explicitly teach each of the four different ssDNA probes in Figure 2 are spotted from solutions having the same concentrations, Sheehan et al only disclose one solution concentration for spotted DNA probes (page 1456, Section 2.2). Thus, Sheehan et al either teach all of the probes are spotted at the same concentration, or it would be obvious because Sheehan et al do not indicated that different concentrations are utilized.

Sheehan et al do not teach spots are for different genes, or that the number of spots differs depending on the genes.

However, Ilsley et al teach a probe carrier comprising a carrier in the form of a substrate having an array (Abstract) having thereon a plurality of probe spots (paragraph 0068). The array comprises a plurality of different spot patterns, corresponding to different genes, such that the number of different spot patterns is as great as the number of genes represented on the array (paragraph 0068).

It is noted that *In re Best* (195 USPQ 430) and *In re Fitzgerald* (205 USPQ 594) discuss the support of rejections wherein the prior art discloses subject matter which there is reason to believe includes functions that are newly cited or is identical to a product instantly claimed. In such a situation the burden is shifted to the applicants to "prove that subject matter shown to be in the prior art does not posses characteristic relied on" (205 USPQ 594, second column, first full paragraph). Ilsley et al teach the each gene pattern is different, and that the patterns include a grid of spots across the substrate surface, curvilinear rows across the surface, concentric circles, or semicircles of spots. The different patterns are believed to contain different numbers; i.e., a straight line (i.e., a grid) across the surface is believed to contain a different number of spots than curvilinear rows across the surface, a series of concentric circles, or semicircles.

Ilsley et al also teach the different spot patterns for different genes have the added advantage of allowing computer analysis of the data so that patient response to treatment can be monitored (paragraph 0004). Thus, Ilsley et al teach the known technique of having spots for different genes, and that the number of spots differs depending on the genes.

It would therefore have been obvious to a person of ordinary skill in the art at the time the claimed invention was made to have modified the probe carrier as taught by Sheehan et al so that the spots of the probe carrier comprise spots for different genes and so that the pattern of spots, and thus the number of spots, differs depending on the genes in accordance with the teachings of Ilsley et al to arrive at the instantly claimed probe carrier with a reasonable expectation of success. The ordinary artisan would

have been motivated to make the modification because said modification would have resulted in a probe carrier having the added advantage of allowing computer analysis of the data so that patient response to treatment can be monitored as explicitly taught by Ilsley et al (paragraph 0004). In addition, it would have been obvious to the ordinary artisan that the known technique of having pattern of spots for different genes, and thus different numbers of spots for different genes, as taught by Ilsley et al could have been applied to the probe carrier of Sheehan et al with predictable results because the known technique of having pattern of spots for different genes, and thus different numbers of spots for different genes, as taught by Ilsley et al predictably results in probe numbers and spot numbers suitable for genetic assays.

While neither Sheehan et al nor Ilsley et al teach at least two spots of the same probe are arranged in each of the areas (i.e., repetition of the spots), the courts have held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced (*In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). See MPEP 2144.04 VI.B.

It is noted that the Response above should not be construed as an invitation to file an after final declaration. See MPEP 715.09 [R-3].

Regarding claim 10, the carrier of claim 1 is discussed above. Ilsley et al teach the spots are formed by an ink-jet (i.e., pulse jet) method (paragraph 0072). Thus, modification of the carrier of Sheehan et al with the teachings of Ilsley et al results in a probe carrier wherein the spots are formed by an ink-jet (i.e., pulse jet) method.

In addition, it is noted that the courts have stated:

> "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP§ 2113.

The limitations of claim 10 are part of the process of making the probe carrier rather than structural limitations of the probe carrier. Because the prior art teaches the structural elements of claim 1, claim 10 is also obvious over the prior art.

Regarding claim 26, the carrier of probe 1 is discussed above. It is reiterated that while neither Sheehan et al nor Ilsley et al teach at least one hundred spots of the same probe are arranged in each of the areas (i.e., repetition of the spots), the courts have held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.

It is also reiterated that the Response above should not be construed as an invitation to file an after final declaration.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheehan et al (Biosensors and Bioelectronics, vol. 18. pages 1455-1459, available online 2 April 2003; as evidenced by the Biosensors and Bioelectronics homepage at sciencedirect.com [retrieved on 2010-02-02]) in view of Ilsley et al (U.S. Patent Application Publication No. US 2004/0081969 A1, published 29 April 2004, filed 29 October 2002) as applied to claim 1 above, and further in view of Ares et al (U.S. Patent Application Publication No. US 2004/0009512 A1, published 15 January 2004, filed 25 April 2003).

Regarding claim 11, the probe carrier of claim 1 is discussed above in Section 6.

Neither Sheehan et al nor Ilsley et al specifically teach the maximum number of spots in the arrays differs 100 to 1000 times.

However, Ares et al teach arrays comprising a plurality of different oligonucleotide spot patterns, wherein each spot pattern is to a different target nucleic acid (paragraph 0072), and that the number of spots of a typical array is about twenty or about twenty thousand (paragraph 0071), which has the added advantage of being useful in high throughput applications (paragraph 0072). Thus, Ares et al teach the known technique of providing spot densities having 1000-fold differences.

It would therefore have been obvious to a person of ordinary skill in the art at the time the claimed invention was made to have modified the carrier of Sheehan et al in view of Ilsley et al so that range of the number of spots is such that the first area has 20 probes and another area has 20,000 probes as taught by Ares et al to arrive at the instantly claimed carrier with a reasonable expectation of success. The ordinary artisan would have been motivated to make the modification because said modification would have resulted in a carrier having the added advantage of being useful in high throughput applications as explicitly taught by Ares et al (paragraph 0072). In addition, it would have been obvious to the ordinary artisan that the known technique of having spot arrays having ranges of spot numbers of 1000 times difference of Ares et al could have been applied to the carrier of Sheehan et al in view of Ilsley et al with predictable results because the known technique of having spot arrays having ranges of spot numbers of

1000 times difference of Ares et predictably results in a reliable array configuration for detecting target molecules.

8. Claims 1, 10, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheehan et al (Biosensors and Bioelectronics, vol. 18. pages 1455-1459, available online 2 April 2003; as evidenced by the Biosensors and Bioelectronics homepage at sciencedirect.com [retrieved on 2010-02-02]) in view of Ilsley et al (U.S. Patent Application Publication No. US 2004/0081969 A1, published 29 April 2004, filed 29 October 2002) in view of Schena (U.S. Patent Application Publication No. US 2005/0153318 A1, filed 10 July 2000).

It is noted that while claims 1, 10, and 26 have been rejected under 35 U.S.C 103(a) as described above in Section 6, the claims are also obvious using the interpretation outlined below.

Regarding claim 1, Sheehan et al teach a probe carrier in the form of a biomolecule array, which has a gold surface (page 10456, Section 2.2) having separated spots at known locations on the carrier (Figure 2). The spots have a uniform diameter (page 1457, column 2, second full paragraph), and are produced from a 3 micromolar solution (page 1456, Section 2.2).

It is noted that *In re Best* (195 USPQ 430) and *In re Fitzgerald* (205 USPQ 594) discuss the support of rejections wherein the prior art discloses subject matter which there is reason to believe includes functions that are newly cited or is identical to a product instantly claimed. In such a situation the burden is shifted to the applicants to

"prove that subject matter shown to be in the prior art does not posses characteristic relied on" (205 USPQ 594, second column, first full paragraph). While Sheehan et al do not explicitly teach each of the four different ssDNA probes in Figure 2 are spotted from solutions having the same concentrations, Sheehan et al only disclose one solution concentration for spotted DNA probes (page 1456, Section 2.2). Thus, Sheehan et al either teach all of the probes are spotted at the same concentration, or it would be obvious because Sheehan et al do not indicated that different concentrations are utilized.

Sheehan et al do not teach spots are for different genes, or that the number of spots differs depending on the genes.

However, Ilsley et al teach a probe carrier comprising a carrier in the form of a substrate having an array (Abstract) having thereon a plurality of probe spots (paragraph 0068). The array comprises a plurality of different spot patterns, corresponding to different genes, such that the number of different spot patterns is as great as the number of genes represented on the array (paragraph 0068).

It is noted that *In re Best* (195 USPQ 430) and *In re Fitzgerald* (205 USPQ 594) discuss the support of rejections wherein the prior art discloses subject matter which there is reason to believe includes functions that are newly cited or is identical to a product instantly claimed. In such a situation the burden is shifted to the applicants to "prove that subject matter shown to be in the prior art does not posses characteristic relied on" (205 USPQ 594, second column, first full paragraph). Ilsley et al teach the each gene pattern is different, and that the patterns include a grid of spots across the

substrate surface, curvilinear rows across the surface, concentric circles, or semicircles of spots. The different patterns are believed to contain different numbers; i.e., a straight line (i.e., a grid) across the surface is believed to contain a different number of spots than curvilinear rows across the surface, a series of concentric circles, or semicircles.

Ilsley et al also teach the different spot patterns for different genes have the added advantage of allowing computer analysis of the data so that patient response to treatment can be monitored (paragraph 0004). Thus, Ilsley et al teach the known technique of having spots for different genes, and that the number of spots differs depending on the genes.

It would therefore have been obvious to a person of ordinary skill in the art at the time the claimed invention was made to have modified the probe carrier as taught by Sheehan et al so that the spots of the probe carrier comprise spots for different genes and so that the pattern of spots, and thus the number of spots, differs depending on the genes in accordance with the teachings of Ilsley et al to arrive at the instantly claimed probe carrier with a reasonable expectation of success. The ordinary artisan would have been motivated to make the modification because said modification would have resulted in a probe carrier having the added advantage of allowing computer analysis of the data so that patient response to treatment can be monitored as explicitly taught by Ilsley et al (paragraph 0004). In addition, it would have been obvious to the ordinary artisan that the known technique of having pattern of spots for different genes, and thus different numbers of spots for different genes, as taught by Ilsley et al could have been applied to the probe carrier of Sheehan et al with predictable results because the known

technique of having pattern of spots for different genes, and thus different numbers of spots for different genes, as taught by Ilsley et al predictably results in probe numbers and spot numbers suitable for genetic assays.

Neither Sheehan et al nor Ilsley et al teach at least two spots of the same probe in each area (i.e., repetition of the spots).

However, Schena teaches a probe carrier in the form of a microarray wherein each nucleic acid (i.e., spot on the microarray) is repeated in triplicate (paragraph 0022 and Figure 2). Thus, each nucleic acid is present in at least two locations. Schena also teaches the triplicate replication of each of the nucleic acids has the added advantage of increasing the reliability of the results (paragraph 0022). Thus, Schena teaches the known technique of having at least two of each nucleic acid and that the control nucleic acids are adjacent to the samples

It would therefore have been obvious to a person of ordinary skill in the art at the time the claimed invention was made to have modified the probe carrier as taught by Sheehan et al in view of Ilsley et al so that there are at least two identical spots in each area in accordance with the teachings of Schena to arrive at the instantly claimed probe carrier with a reasonable expectation of success. The ordinary artisan would have been motivated to make the modification because said modification would have resulted in a probe carrier having the added advantage of increasing the reliability of the results as explicitly taught by Schena (paragraph 0022). In addition, it would have been obvious to the ordinary artisan that the known technique of having repeated identical spots as taught by Schena could have been applied to the probe carrier of Sheehan et al in view

of Ilsley et al with predictable results because the known technique of having repeated identical spots as taught by Schena predictably results in spot configurations suitable for genetic assays.

Regarding claim 10, the carrier of claim 1 is discussed above. Ilsley et al teach the spots are formed by an ink-jet (i.e., pulse jet) method (paragraph 0072). Thus, modification of the carrier of Sheehan et al with the teachings of Ilsley et al and Schena results in a probe carrier wherein the spots are formed by an ink-jet (i.e., pulse jet) method.

In addition, it is noted that the courts have stated:

> "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP§ 2113.

The limitations of claim 10 are part of the process of making the probe carrier rather than structural limitations of the probe carrier. Because the prior art teaches the structural elements of claim 1, claim 10 is also obvious over the prior art.

Regarding claim 26, the carrier of probe 1 is discussed above. It is reiterated that while neither Sheehan et al Ilsley et al, nor Schena teach at least one hundred spots of the same probe are arranged in each of the areas (i.e., repetition of the spots), the courts have held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced.

It is also reiterated that the Response above should not be construed as an invitation to file an after final declaration.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sheehan et al (Biosensors and Bioelectronics, vol. 18. pages 1455-1459, available online 2 April 2003; as evidenced by the Biosensors and Bioelectronics homepage at sciencedirect.com [retrieved on 2010-02-02]) in view of Ilsley et al (U.S. Patent Application Publication No. US 2004/0081969 A1, published 29 April 2004, filed 29 October 2002) in view of Schena (U.S. Patent Application Publication No. US 2005/0153318 A1, filed 10 July 2000).as applied to claim 1 above, and further in view of Ares et al (U.S. Patent Application Publication No. US 2004/0009512 A1, published 15 January 2004, filed 25 April 2003).

It is noted that while claim 11 has been rejected under 35 U.S.C 103(a) as described above in Section 7, the claim is also obvious using the interpretation outlined below.

Regarding claim 11, the probe carrier of claim 1 is discussed above in Section 8.

Neither Sheehan et al, Schena nor Ilsley et al specifically teach the maximum number of spots in the arrays differs 100 to 1000 times.

However, Ares et al teach arrays comprising a plurality of different oligonucleotide spot patterns, wherein each spot pattern is to a different target nucleic acid (paragraph 0072), and that the number of spots of a typical array is about twenty or about twenty thousand (paragraph 0071), which has the added advantage of being

useful in high throughput applications (paragraph 0072). Thus, Ares et al teach the known technique of providing spot densities having 1000-fold differences.

It would therefore have been obvious to a person of ordinary skill in the art at the time the claimed invention was made to have modified the carrier of Sheehan et al in view of Ilsley et al and Schena so that range of the number of spots is such that the first area has 20 probes and another area has 20,000 probes as taught by Ares et al to arrive at the instantly claimed carrier with a reasonable expectation of success. The ordinary artisan would have been motivated to make the modification because said modification would have resulted in a carrier having the added advantage of being useful in high throughput applications as explicitly taught by Ares et al (paragraph 0072). In addition, it would have been obvious to the ordinary artisan that the known technique of having spot arrays having ranges of spot numbers of 1000 times difference of Ares et al could have been applied to the carrier of Sheehan et al in view of Ilsley et al and Schena with predictable results because the known technique of having spot arrays having ranges of spot numbers of 1000 times difference of Ares et predictably results in a reliable array configuration for detecting target molecules.

***Response to Arguments***

10. Applicant's arguments filed 29 September 2010 (hereafter the "Remarks") have been fully considered but they are not persuasive for the reasons listed below.

A. On page 5 of the Remarks, Applicant notes that Leproust et al was not included on a PTO Form 892 in the last Office Action. The reference is cited on the PTO Form 892 included with this Office Action. The examiner apologizes for the error.

B. Applicant argues on page 5 of the Remarks that the references do not teach more than one spot of the same probe.

However, as noted above the courts have held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced. Thus, repetition of the spots is an obvious variant of the carrier of the cited prior art.

It is also reiterated that the Response above should not be construed as an invitation to file an after final declaration.

Further, repetition of the spots is obvious in view of the teachings of Schena as discussed above.

***Conclusion***

11. No claim is allowed.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

13. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT T. CROW whose telephone number is (571)272-1113. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave T. Nguyen can be reached on (571) 272-0731. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Robert T. Crow
Primary Examiner
Art Unit 1634

/Robert T. Crow/
Primary Examiner, Art Unit 1634